Revised Date 09-09

CHEM 1011 Introductory Chemistry Laboratory (0-3-1)

.

Course Maximum Enrollment: 24

Special Facility or Equipment Needs/Safety Rules and Issues: Chemistry Lab

Lab Fee: None

Course Description: Experiments in general chemistry, organic chemistry, and biochemistry.

Pre- and Co-requisites: CHEM 1010

Texts and Readings: Hands on Chemistry 1st ed. or latest edition (ISBN: 0-07-253411-7), *Jeffrey Paradis and Kristen Spotz,* McGraw-Hill Companies.

Course Goal: Students should discover the everyday applications of chemistry and make connections to biology, earth science and physical science. Students should also develop study skills and problem solving and critical thinking strategies.

Course Objectives:

The student should be able to:

- discuss the history of chemistry, the work of significant contributors to chemistry, and how it developed and changed into modern chemistry.
- utilize methods and systems of measurement necessary for studying chemistry.
- describe and define and use the scientific method.
- explain basic laws and theories of chemistry, matter, and energy.
- define and use in context the terminology appropriate to basic chemistry.
- discuss the historical basis and significance of the periodic table.
- discuss and describe chemical bonding, formulas, associated calculations and concepts.
- discuss, describe, and define chemical reactions, associated equations, associated descriptive terminology and be able to calculate quantities of reactants, products and yields.
- discuss, describe, and calculate the energy involved in chemical reactions.
- discuss and describe the laws and theories of gases and be able to use the calculations.
- discuss and explain the basic principles associated with gases, liquids, and solids, and use the appropriate terminology.
- discuss and explain the basic principles associated with solutions and use the appropriate terminology.
- discuss and explain the basic principles associated with acids, bases, and salts.

Course Content:

Week 1	Origins of chemistry
Week 2	Systems and measurement
	Matter and energy, atoms and molecules
Week 3	Atomic theory
Week 4	Atomic theory
Week 5	Examination I
	Periodic table
Week 6	Chemical bonding
Week 7	Chemical nomenclature
Week 8	Calculations involving chemical formulas
Week 9	The chemical equation
	Examination II
Week 10	Stoichiometry
Week 11	Heats of reactions
Week 12	Gases liquids and solids
Week 13	Chemistry of solutions
Week 14	Acids, bases, and salts
Week 15	Examination III
Week 16	Comprehensive Final examination

Assessment: 3 Examinations, 300 points, Comprehensive
200 points Weekly quizzes
100 points Project/reports

200 points
Total points 800 points

Reading and Writing Across the Curriculum: The reading and writing components of these aforementioned assessments satisfies the Reading and Writing Across the Curriculum requirement as stipulated in SLCC's academic policy.

Grading and Absence Policy: Grading Scale: 100-90 = A; 89-80 = B; 79-70 = C; 69-60 = D; 59-0 = F. Students who miss 10% of class meetings will be advised to see a counselor. Students who merely stop attending and chose not to withdraw will earn an "F" for the course. Make-up examinations will be given only to those persons having legitimate excuses. The instructor should be contacted in advance-not after-the examination. It is the discretion of the instructor to accept an excuse. It is the responsibility of the student to arrange with the instructor for make-up examinations. A student will receive a grade of zero on an assignment or test for the following: cheating, plagiarism, or collusion. Any student who commits or attempts to commit any of these acts will be subject to disciplinary proceedings as detailed in the Student Discipline Procedures Outlined in the Student Handbook.

Students with Disabilities: Students with a disability requiring assistance or accommodation, such as for testing, note takers, readers, etc., should contact the instructor as soon as possible. Students may also contact the dean of Students with questions about such services.

Emergency Evacuation Procedure: A map of this floor is posted in the front of this building. The map marks the evacuation route and the Designated Rescue Area. This area is where emergency service personnel will go first to look for individuals who need assistance in exiting the building. Students who may need assistance should identify themselves to the teaching faculty.